## TAXONOMIC NOTES ON THE GENUS ABLEPHARUS (SAURIA: SCINCIDAE).

I. A new species from the darling river.

By Stephen J. Copland, B.Sc.<br>(Plate xviii; three Text-figures.)

[Read 27th November, 1946.]

## Introduction.

This paper-the first of a series in which I hope to discuss all Australian members of the Scincid genus Ablepharus Fitzinger-deals with an apparently new species from western New South Wales.

## Ablepharus kinghorni, n. sp.

Diagnosis: An Ablepharus with the frontoparietal single and interparietal distinct; differing from the only other Australian pentadactyl member of this group, Ablepharus ornatus Broom (1896, p. 343: Broom, R. On Two New Species of Ablepharus from North Queensland. Ann. Mag. Nat. Hist., (6) 18: 106) from Muldiva, north Queensland, in having 22 midbody scale rows (A. ornatus $26-28$ ), four supraoculars ( $A$. ornatus 3 ), shorter limbs, colour, and other characters as given in Table 2.

Holotype. No. R6458A in the Australian Museum; Darling River, between Bourke ( $30.5^{\circ}$ S., $145.58^{\circ}$ E.) and Wilcannia ( $31.28^{\circ}$ S., $143 \cdot 13^{\circ}$ E.), New South Wales, collector Robt. Helms, May-June, 1890, "Darling River floods".


Fig. 1.-Map of New South Wales showing type locality of Ablepharus kinghorni, n. sp., "Darling River, between Bourke and Wilcannia".

Description of Holotype.-Rostral not projecting; smoothly rounded when seen from above, the area visible being equal to about two-thirds that of the frontonasal; long, mainly concave but slightly sinuous, sutures with the nasals; concave sutures, about one-half the length of those with the nasals, with 1st supralabials; the short, convex junction with the frontonasal is equal to about one-fifth the width of the frontal. Nasals moderate, not in contact, roughly triangular; all sutures convex, long posterior one with
frontonasal and postnasal, slightly shorter anterior one with rostral, and still shorter one with 1st supralabial; well separated from 2nd supralabial; scale ungrooved except for slight vertical indentation behind nostril on left side; rounded nostril, with diameter equal to one-third length of scale, near ventral border. No supranasals. Postnasal subequal in size to nasal; long, sweepingly convex, dorsal and posterior border against frontonasal, prefrontal, and anterior loreal; mainly concave but slightly irregular suture with nasal; short, nearly horizontal one with 2nd supralabial; and quite short straight one with 1st supralabial. Frontonasal large, equal to at least two-thirds the area of the frontal, with which it forms a suture about one-tenth or less the width of the latter scale; long, very slightly concave sutures with prefrontals, and considerably shorter, both subequal in length, with the postnasal and nasal; that with the rostral being shorter again. Prefrontals large, nearly equal to one-half the area of the frontal, roughly quadrilateral; two long, nearly straight sides against frontal and frontonasal; shorter, slightly concave ones against postnasal and 1st supraciliary, considerably shorter with anterior loreal, while it meets the 1st supraocular at little more than a point. Frontal large, kiteshaped though rather squat, width equal to that of the supraocular region at its widest, length equal to its distance from the tip of the snout; very narrowly in contact anteriorly and posteriorly with the frontonasal and frontoparietal respectively; sides against prefrontals, 1st and 2nd supraoculars; just separated from 1st supraciliaries. Frontoparietal single, equal in length to the frontal, but considerably wider and larger; long, sinuous sutures with parietals; on each side the contacts with 2 nd, 3 rd and 4 th supra-

2

3

Figs. 2-3.-Head scales of Ablepharus kinghorni, n. sp. 2. Dorsal view. 3. Lateral view. Length of head, 7 mm .
oculars are subequal in length; indented against small kite-shaped interparietal. Interparietal rounded behind, enclosed between parietals, somewhat less than one-half the length of the frontoparietal; has a dark rounded pineal area in the anterior third. Parietals each nearly equal to the frontoparietal in size, irregularly oblong; long axes, which diverge at about $90^{\circ}$, twice the length of the short; meeting behind the interparietal in an oblique suture sloping backwards towards the right; other sutures, convex but irregular with nuchal; slightly shorter and straight with upper secondary temporal; about same length, sinuous, with frontoparietal; short with interparietal, 2nd postocular and 6th supraciliary, and very short with 4 th supraocular. There is a single pair of nuchals, each twice the width of a following body scale. Seven supralabials, anterior four small; 2nd and 3 rd , which are equal in size, squarish and slightly larger than 1st and 4th which are subequal and irregularly quadrilateral; 1st in contact anteriorly with rostral and dorsally with nasal and postnasal; 2nd dorsally with postnasal and anterior loreal; 3rd dorsally with posterior loreal and just touching anterior loreal and presubocular; 4th dorsally with presubocular and posteriorly with 5th supralabial; 5th very large, equal in size to three of the four anterior supralabials, boat-shaped, long and concave upper margin forming the entire lower border of the eye; 6th and 7th taller but somewhat smaller than 5 th, pentagonal, roughly haystack-shaped, lower margins horizontal, anterior and posterior vertical, and the other two sides meeting in a point dorsally; two small postlabials are separated by two scales from the ear opening. Primary temporal squarish, two posterior borders against upper and lower secondary temporals and 7 th supralabial, anterior two against 2 nd and 3 rd postoculars and 6 th supralabial. The upper secondary temporal is slightly larger than the lower which is again slightly larger than the primary. Two tertiary temporals, which are considerably larger than the following body scales, lie directly behind the still larger secondary temporals. Body scales begin behind the nuchals, tertiary temporals and postlabials. The two loreals are rough squares subequal in size; the anterior lies between postnasal, prefrontal, 1st supraciliary, posterior loreal, and 2nd and 3rd supralabials; the posterior between anterior loreal, 1st supraciliary, one of three small preoculars, presubocular, and 3 rd supralabial. The eye is surrounded by about 20 triangular or roughly oblong granules, two dorsal ones being larger than the others. Outside this inner ring of granules are two other irregular rings. These granules are much the same size, except for three or four posterior ones of the outer circle which are enlarged. The outer ring is bounded by the 2nd to 5 th supraciliaries above, 5 th supralabial below, three small preoculars and presubocular anteriorly, and by 6 th supraciliary, 1 st and 3 rd postoculars, and 6 th supralabial posteriorly. The three preoculars, a triangular anterior one and two irregular scales behind, are together about half the area of a loreal. The presubocular is square, equal in size to a loreal, and lies between the two lower preoculars, posterior loreal, and 3rd, 4th and 5th supralabials. The postoculars are three small scales, the anterior 1st squarish and about half the size of the squarish antero-ventral 3rd, which is less than half the size of the oblong 2 nd ; the 2 nd is noticeably larger than the 6 th supraciliary, and lies between it, parietal, upper secondary temporal, primary temporal, and 1st and 3rd postoculars. Of the six supraciliaries, the 6 th is larger than the 1st, which is larger than the 2 nd, the remaining three are smaller again, squarish, and lie against the 2 nd , 3 rd , and 4 th supraoculars respectively; the 1 st is triangular and lies between prefrontal, 1st supraocular, 2nd supraciliary, two preoculars, and the two loreals; it is just separated from the frontal; the 6 th is twice as high as wide and lies between 4 th supraocular, parietal, 1 st and 2 nd postoculars, an enlarged granule, and 5th supraciliary. There are four well-developed supraoculars, the 2nd largest, then the $3 r d, 4$ th and 1 st; the frontal is in contact with the 1st and 2nd, the frontoparietal with the $2 \mathrm{nd}, 3 \mathrm{rd}$ and 4 th, and the parietal very narrowly with the 4 th. The large mental and postmental are followed by three pairs of chin-shields, the 1 st and 2 nd pairs being each separated by a single scale and the 3rd pair by three scales; each of the 3rd chinshields is strongly prolonged posteriorly against a 6 th infralabial. Six, or possibly seven infralabials, in order of decreasing size, $5,4,3,2,6,1,7$.

The ear opening is irregularly rounded, without denticulation, considerably smaller than the pupil of the eye, and three scales behind the last supralabial.

Scales are 22 at midbody, subequal. Caudal scales larger, especially the transverse, subcaudal row. Two strongly enlarged preanal scales. Scales from above vent to parietals, 63.

Body rather elongate, the distance between the end of the snout and the forelimb is contained about twice in the distance between axilla and groin. Limbs moderately developed, well separated when adpressed. Lamellar formula for fingers, 6, 9, 13, 13, 8. Lamellar formula for toes, $7,12,15,17,10$. All lamellae are compressed and spinose; most tubercles on the palm and sole are also sharp.

Measurements of the holotype are given with those of the paratypes in Table 1.
Table 1.
Measurements of the Holotype and Paratypes of Ablepharus kinghorni, n. sp., in mm.

| Number. |  |  | R 6458A. | R 6458B. | R 6459A. | R 6459B. | R 6460A. | R 6460B. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Snout-vent . . | .. .. | . | 45 | 39 | 38 | 39 | 38 | 33 |
| Tail | ... . | .. | 54 | 54 | $28+$ | 64 | $6+$ | $30+$ |
| Snout-ear | .. - | . | 8 | 7 | 7 | 7 | 7 | $6 \cdot 5$ |
| Snout-forelimb | .. - | . | 13 | 12 | $12 \cdot 5$ | 13 | 12 | 11.5 |
| Axilla-groin .. | .. .. | . | 27 | 22 | 22 | 22 | 22 | 18 |
| Head, length | .. .- | . | 7 | 6 | $6 \cdot 5$ | $6 \cdot 5$ | 6 | $5 \cdot 5$ |
| Head, width | .. . |  | 5 | $4 \cdot 5$ | $4 \cdot 5$ | 5 | $4 \cdot 5$ | 4 |
| Body, width | . | . | 6 | 6 | 5 | 6 | 5 | 4 |
| Forelimb, length | .. | . | $9 \cdot 5$ | 9 | $9 \cdot 5$ | $9 \cdot 5$ | 9 | 8 |
| Hindlimb, length | $\cdots$ | . | 13 | 12 | 12 | 12 | 11 | 10 |
| Tail/Snout-vent | . | . | $1 \cdot 20$ | $1 \cdot 38$ | - | $1 \cdot 64$ | - | - |
| Axilla-groin/Snout- | forelimb | . | $2 \cdot 08$ | 1.83 | $1 \cdot 76$ | $1 \cdot 69$ | 1.83 | 1.57 |

The specimen is much bleached, but the original ground colour was probably medium brown. Most prominent markings are 10 white streaks contained within 11 brown ones extending longitudinally from the head to the base of the tail, where they are reduced in number. The white and brown lines, one of the latter being mid-dorsal, are practically similar in width, the white occupying the central half of each scale and the brown the edges on each side. All dorsal lines are equally distinct. The lateral ones, though still sharply defined, are not so prominent. There are longitudinal lines along the limbs. The lines become confluent or die out at the base of the tail, and those continuing posteriorly appear to end about the length of the hind limb from the vent. The remainder of the tail seems to have been a uniform brown. The underside except for the tail is whitish to light brown. The supraoculars and temporals and other head scales behind them are heavily margined with dark brown.

The species is named for Mr. J. R. Kinghorn, of the Australian Museum, as a slight recognition of his services to Australian herpetology, and also as thanks for much personal help and advice.

Variation in Paratypes.-Five specimens, Nos. R6458B, R6459A, R6459B, R6460A and R6460B, in the Australian Museum, with same particulars as the holotype R6458A, are undoubtedly paratypes in the strictest sense.

Comparison of the series shows only insignificant differences. The length of the suture between rostral and frontonasal in R6459B is equal to one-fifth the width of the frontal as in the holotype, but is slightly wider in the other four cases. In R6458B and R6459B the nasal and 2nd supralabial meet at a point. Prefrontals and 1st supraoculars have slightly longer contacts in the five paratypes than in the holotype. The tertiary temporals are prominent in some specimens, indistinguishable from body scales in others. The 2 nd to 5 th supraciliaries are roughly subequal in size in all paratypes. In R6459B the chin-shields are separated by 1,2 , and 3 scales instead of 1,1 , and 3 as in all the others. Every lizard has 22 midbody scale rows. Tail/snout-vent and axilla-groin/snoutforelimb ratios differ considerably as shown in Table 1, but I cannot regard the differences as significant. Lamellae beneath the 4 th toes are 17 (once), 18 (twice), and 19 (twice). Markings and colour (allowing for unexplained differential bleaching) are identical in all specimens. The pattern is best seen in R6460B, which is figured in Plate xviii, and R6459A.

The main points of difference between Ablepharus kinghorni and A. ornatus are set out in Table 2.

Table 2.


Acknowledgements.
I wish to acknowledge help and advice from Professor W. J. Dakin and Professor E. A. Briggs, of the University of Sydney; also Dr. A. B. Walkom, Mr. J. R. Kinghorn and Mr. W. A. Rainbow, of the Australian Museum. Mr. Kinghorn also kindly lent me specimens. I have to thank Miss A. G. Burns, of the Department of Zoology, University of Sydney, for the photographs.

## EXPLANATION OF PLATE XVIII.

Figs. 1-3. Ablepharus kinghorni, n. sp.
Fig. 1.-Dorsal view of holotype, No. R6458A; length of head and body, 45 mm .
Fig. 2.-Dorsal view of paratype, No. R6460B; length of head and body, 33 mm .
Fig. 3.-Lateral view of No. R6460B.
Photos.-Miss A. G. Burns.

